

542648

Rec'd PCT/PTO 19 JUL 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/065178 A1

(51) International Patent Classification⁷: **B60R 21/16**

(21) International Application Number:
PCT/IB2004/000166

(22) International Filing Date: 23 January 2004 (23.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-016199 24 January 2003 (24.01.2003) JP

(71) Applicant (for all designated States except US): **TOYOTA JIDOSHA KABUSHIKI KAISHA [JP/JP]**; 1, Toyota-cho, Toyota-shi, Aichi-ken, 471-8571 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HAYAKAWA, Tatsuya [JP/JP]**; c/o Toyota Jidosa Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken, 471-8571 (JP).

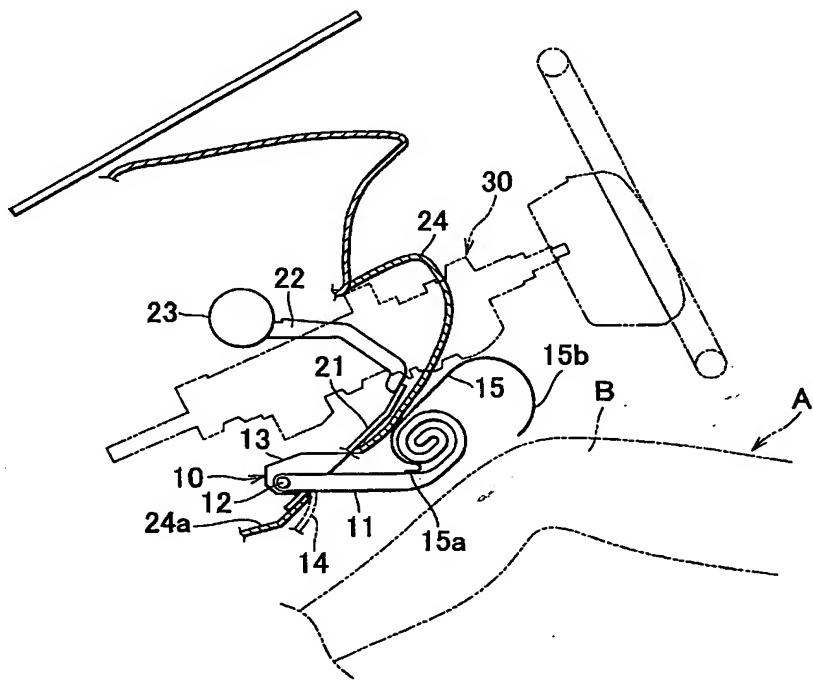
YAMADA, Eiichi [JP/JP]; c/o Toyota Jidosa Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken, 471-8571 (JP). KONDO, Hitoshi [JP/JP]; c/o Toyota Jidosa Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken, 471-8571 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: KNEE PROTECTION APPARATUS FOR VEHICLE OCCUPANT



WO 2004/065178 A1

(57) Abstract: A knee protection apparatus includes an airbag (11) and an airbag support (15) that is attached to the airbag. Upon deployment of the airbag (11), the airbag support together expands so as to cover the instrument panel and thus help the airbag smoothly expand.



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/IB2004/000166

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B60R21/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B60R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 03, 5 May 2003 (2003-05-05) & JP 2002 337653 A (TAKATA CORP), 27 November 2002 (2002-11-27) abstract -----	1-28
A	US 6 092 836 A (SASLECOV VENTI) 25 July 2000 (2000-07-25) column 6, line 46 - column 7, line 17; figures 1-6 -----	1-28
A	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 01, 14 January 2003 (2003-01-14) & JP 2002 249016 A (TOYODA GOSEI CO LTD), 3 September 2002 (2002-09-03) cited in the application abstract -----	1-28
-/-		



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

26 May 2004

Date of mailing of the International search report

03/06/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel: (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Cipriano, P

INTERNATIONAL SEARCH REPORT

PCT/IB2004/000166

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 290 627 A (CUMMING RICHARD J ET AL) 22 September 1981 (1981-09-22) column 2, line 49 - line 53; figures 1-4 -----	1

INTERNATIONAL SEARCH REPORT

PCT/IB2004/000166

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 2002337653	A	27-11-2002	NONE		
US 6092836	A	25-07-2000	SE	513029 C2	19-06-2000
			DE	69621442 D1	04-07-2002
			DE	69621442 T2	09-01-2003
			EP	1164061 A1	19-12-2001
			EP	0848675 A1	24-06-1998
			JP	11512057 T	19-10-1999
			SE	9503037 A	05-03-1997
JP 2002249016	A	03-09-2002	WO	9709207 A1	13-03-1997
			AU	6945501 A	21-01-2002
			CN	1437537 T	20-08-2003
			EP	1300300 A1	09-04-2003
			WO	0204262 A1	17-01-2002
US 4290627	A	22-09-1981	US	2003107206 A1	12-06-2003
			NONE		